

### Amendments to the Claims

A complete listing of the claims follows. Please cancel claims 1-20 as originally presented in the application and introduce new claims 21-40 as listed below.

1-20. (Cancelled)

21. (New) A process for producing a leukocyte composition for autotransplantation comprising the steps of:

- (a) providing an isolated blood sample from a donor individual;
- (b) selectively separating and collecting leukocytes from the sample using a leukapheresis device.

22. (New) The process of claim 21 wherein the leukapheresis device is an automated leukapheresis device.

23. (New) The process of claim 21 wherein the leukapheresis device comprises a closed or functionally closed system.

24. (New) The process of claim 22 wherein the leukapheresis device is a continuous or interrupted flow centrifugation leukapheresis device or a continuous or interrupted flow filtration leukapheresis device.

25. (New) The process of claim 21 wherein the leukapheresis device comprises: (a) a separation device; (b) a leukapheresis tubing set; and (c) one or more pumps for conveying the sample through the tubing set and the separated leukocytes into a collection vessel.

26. (New) The process of claim 21 for producing a leukocyte composition for restorative autotransplantation, further comprising the steps of:

- (c) rendering the collected leukocytes dormant; and optionally
- (d) revitalizing the dormant leukocytes.

27. (New) The process of claim 21 for producing a leukocyte composition for remedial autotransplantation, further comprising the steps of:

- (c) treating the collected leukocytes; and optionally

(d) rendering the treated leukocytes dormant.

28. (New) The process of claim 27 further comprising the step of:

(e) revitalizing the dormant treated leukocytes.

29. (New) The process of claim 26 for producing a leukocyte cell bank, wherein the process is applied iteratively to a series of blood samples from different donor individuals to produce a plurality of dormant leukocyte compositions, the process further comprising the step of retrievably depositing the dormant leukocytes for later autotransplantation.

30. (New) A system for collecting an isolated blood sample from an individual comprising: (a) sampling means for collecting a blood sample from the individual; (b) a sample vessel in fluid communication with the sampling means; (c) a leukapheresis tubing set in fluid communication with the sample vessel, wherein the tubing set is blind, not comprising means for reintroducing any part of the fractionated sample back into the individual.

31. (New) The system of claim 30 wherein the tubing set comprises one or more leukocyte collection vessel(s).

32. (New) The system of claim 30 wherein the tubing set further comprises a blood processing vessel.

33. (New) The system of claim 30 wherein the tubing set further comprises a vessel for residual blood from which the leukocytes have been removed.

34. (New) The system of claim 30 further comprising a needle for conducting a blood sample from the individual into the sample vessel.

35. (New) Apparatus for selectively separating and removing leukocytes from an isolated blood sample from an individual comprising a leukapheresis device loaded with the collection system of claim 30.

36. (New) An apparatus for selectively separating and removing leukocytes from an isolated blood sample from an individual comprising the leukapheresis device of claim 22.

37. (New) A leukocyte composition obtainable (or obtained) by the process of claim 21.

38. (New) A leukocyte cell bank obtainable (or obtained) by the process of claim 29.

39. (New) A method of autotransplantation, which method comprises administering to a donor individual in whom a leukocyte deficiency has arisen a leukocyte composition obtainable by (or obtained by) the process of claim 21.

40. (New) The method of claim 39 wherein the method of autotransplantation comprises CAT therapy or restorative or remedial autotransplantation.